

Fig.1(a)

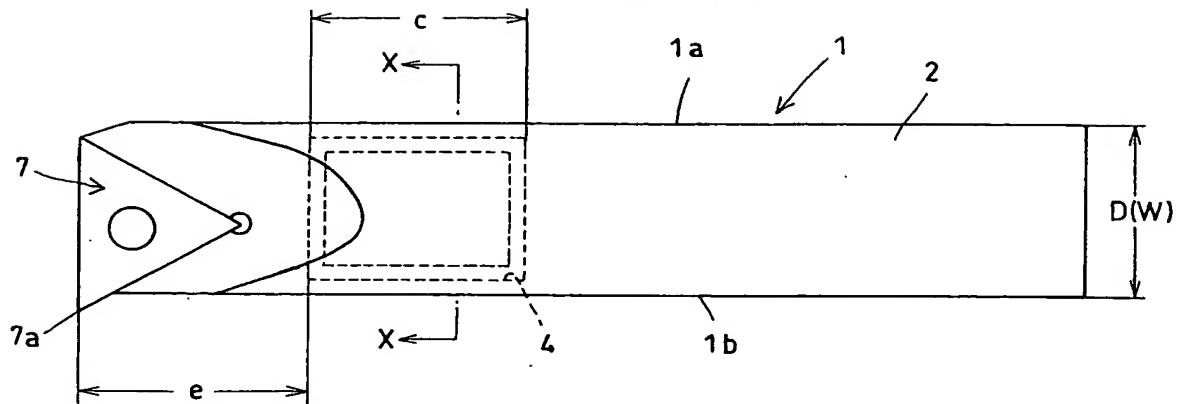


Fig.1(b)

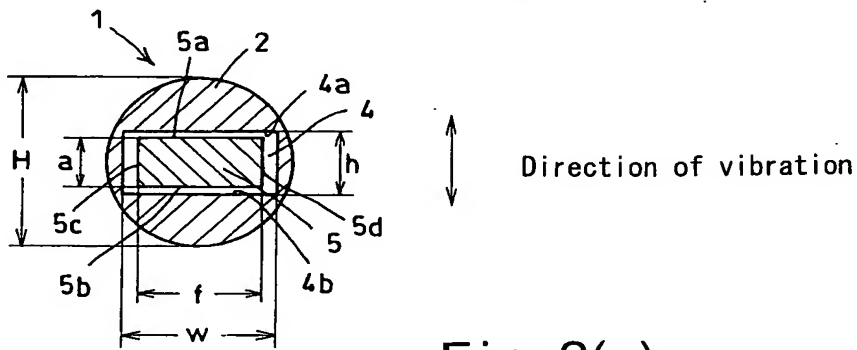


Fig.2(a)

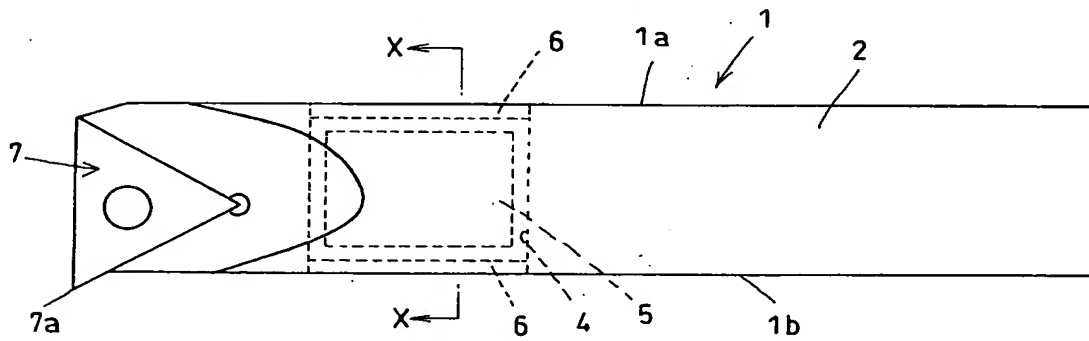


Fig.2(b)

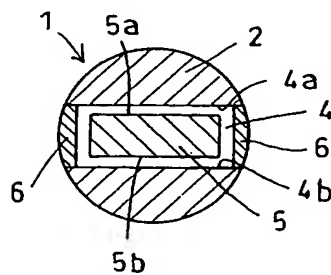


Fig.3(a)

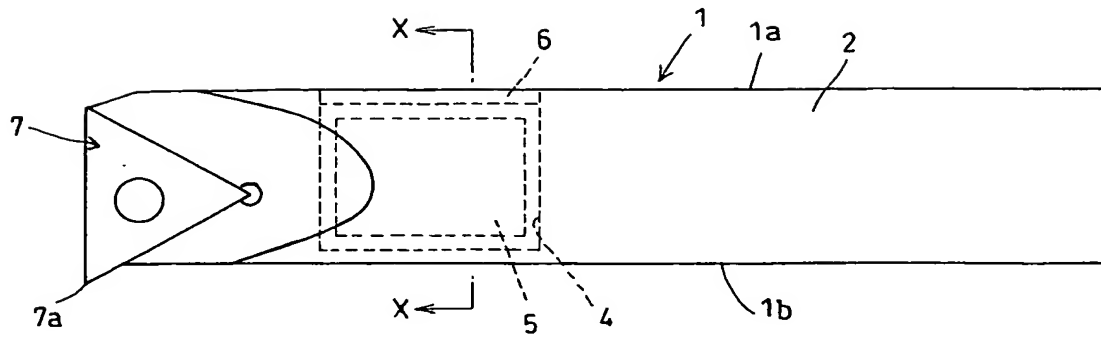


Fig.3(b)

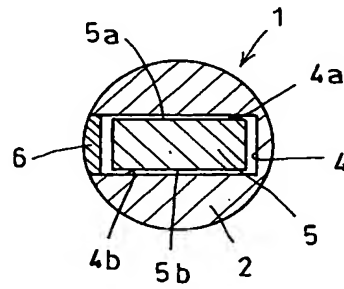


Fig.4(a)

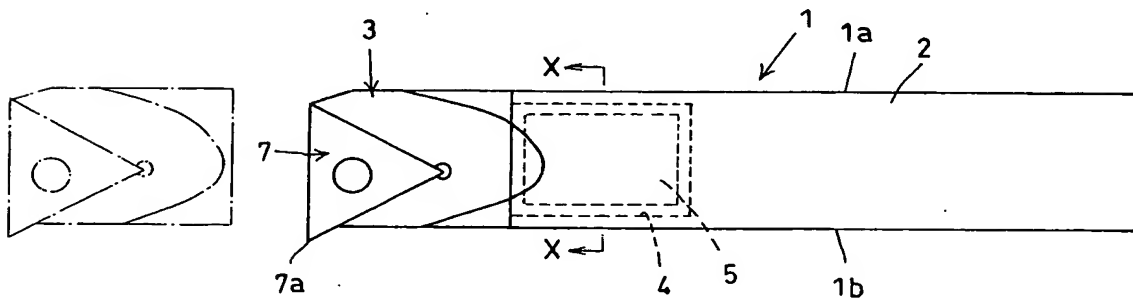


Fig.4(b)

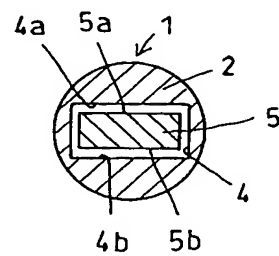


Fig.5(a)

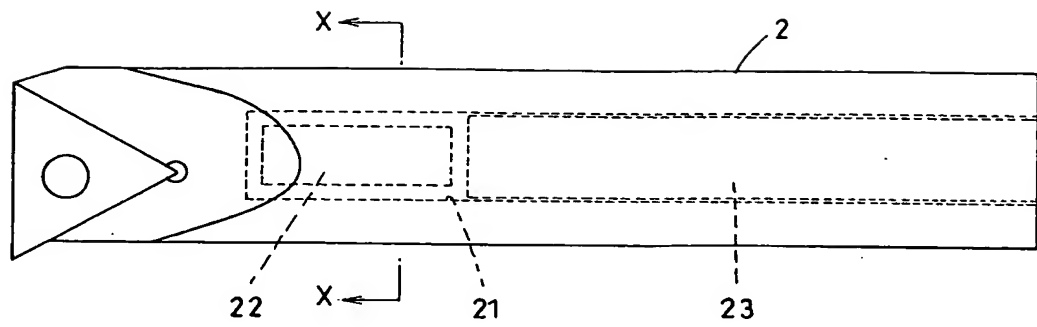


Fig.5(b)

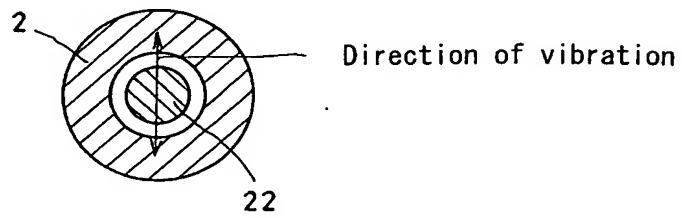


Fig.6(a)

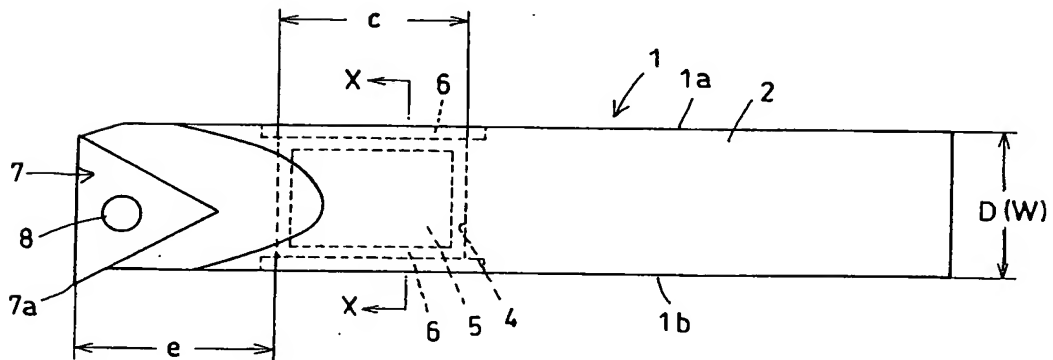


Fig.6(b)

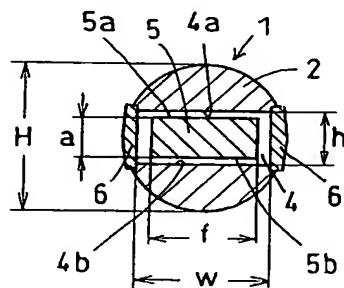


Fig.7(a)

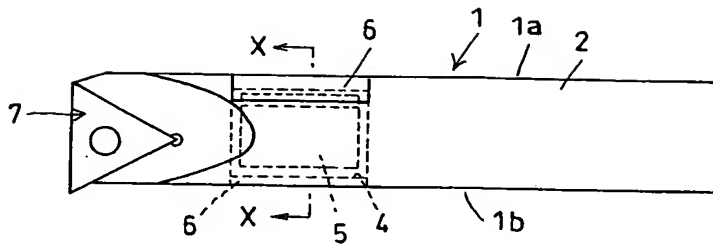


Fig.7(b)

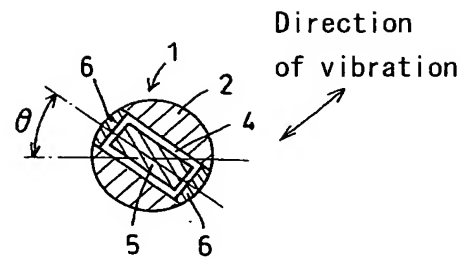


Fig.8(a)

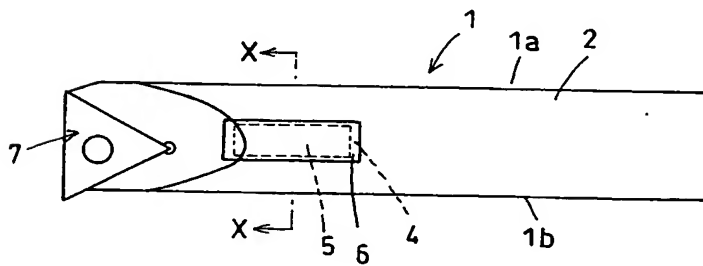


Fig.8(b)

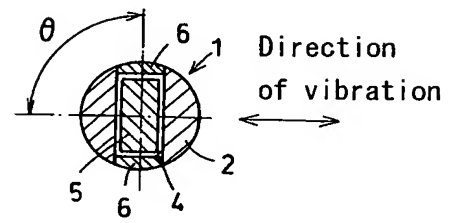


Fig.9(a)

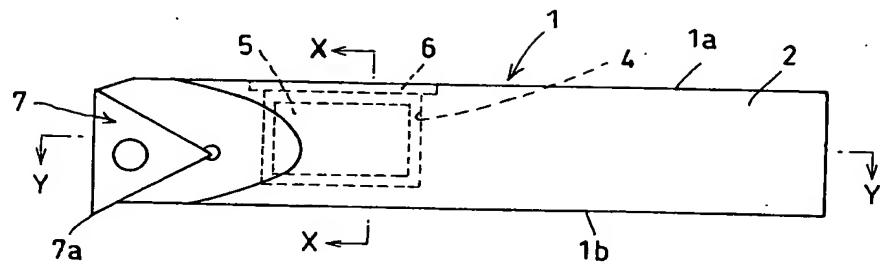


Fig.9(b)

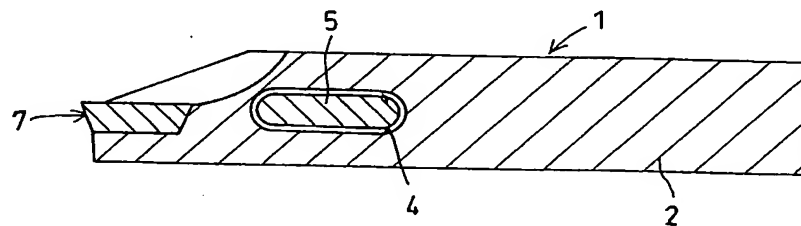


Fig.9(c)

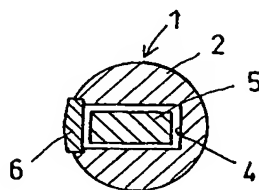


Fig.10

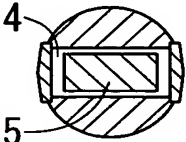
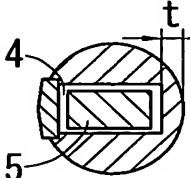
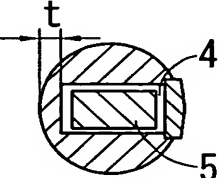
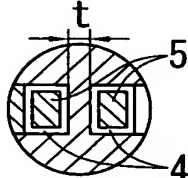
	A	B	C	D
X-X sectional shape				
Amount of deflection based on 100 of steel shank	140	109	135	135

Fig.11

	Shape of pocket		Weight		
	w (mm)	h (mm)	h-a (mm)	Material	Specific gravity
Example 1 of the invention	8	3	0.1	Cemented carbide	15.1
Example 2 of the invention	8	3	0.05	Cemented carbide	15.1
Example 3 of the invention	8	3	0.15	Heavy metal	18.2
Example 4 of the invention	8	3	0.15	Steel	7.8
Example 5 of the invention	8	3	0.3	Cemented carbide	15.1
Example 6 of the invention	8	3	0.5	Cemented carbide	15.1
Comparative Example 1	4	3	0.15	Cemented carbide	15.1
Comparative Example 2	8	3	0	Cemented carbide	15.1
Comparative Example 3	8	3	1.5	Cemented carbide	15.1
Comparative Example 4	Holder with steel shank				
Comparative Example 5	Holder with shank of cemented carbide				

Fig.12

Protrusion      mm	48		60		72		84	
Cutting speed    m/min	80	160	80	160	80	160	80	160
Example 1 of the invention	○	○	○	○	○	○	○	○
Example 2 of the invention	○	○	○	○	○	×	×	×
Example 3 of the invention	○	○	○	○	○	○	○	○
Example 4 of the invention	○	○	○	○	○	×	×	×
Example 5 of the invention	○	○	○	○	○	○	○	○
Example 6 of the invention	○	○	○	○	○	○	×	×
Comparative Example 1	○	○	×	×	×	×	×	×
Comparative Example 2	○	○	×	×	×	×	×	×
Comparative Example 3	○	×	×	×	×	×	×	×
Comparative Example 4	○	○	×	×	×	×	×	×
Comparative Example 5	○	○	○	○	○	×	×	×

Fig.13

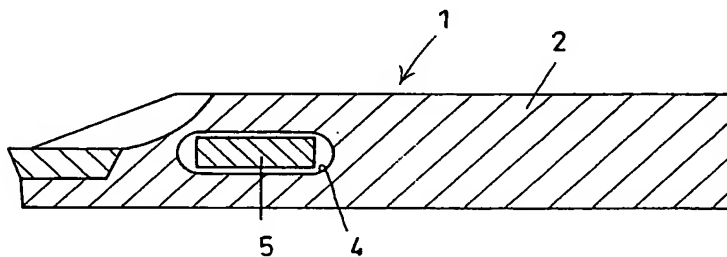


Fig. 14(a)

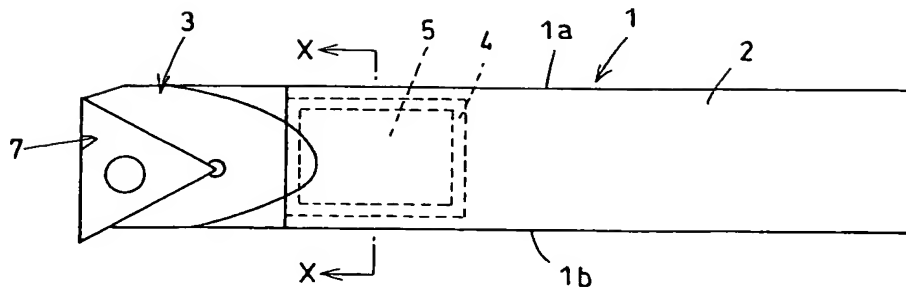


Fig. 14(b)

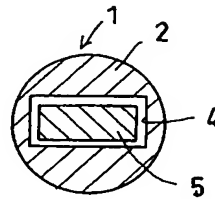


Fig. 15(a)

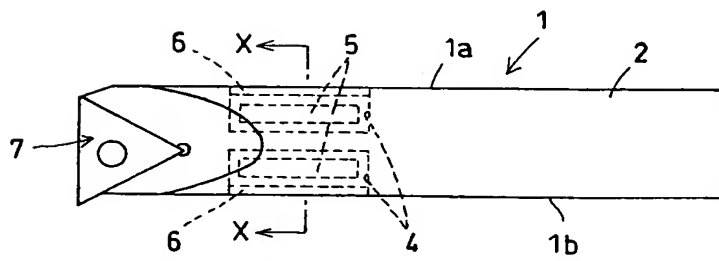


Fig. 15(b)

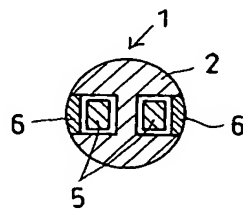


Fig. 16

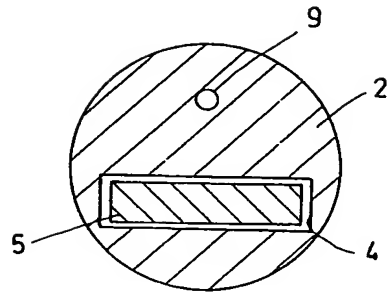


Fig. 17(a)

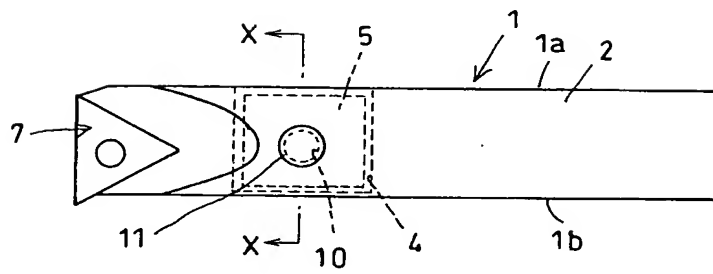


Fig. 17(b)

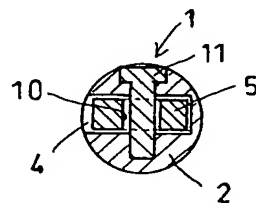




Fig.18(a)

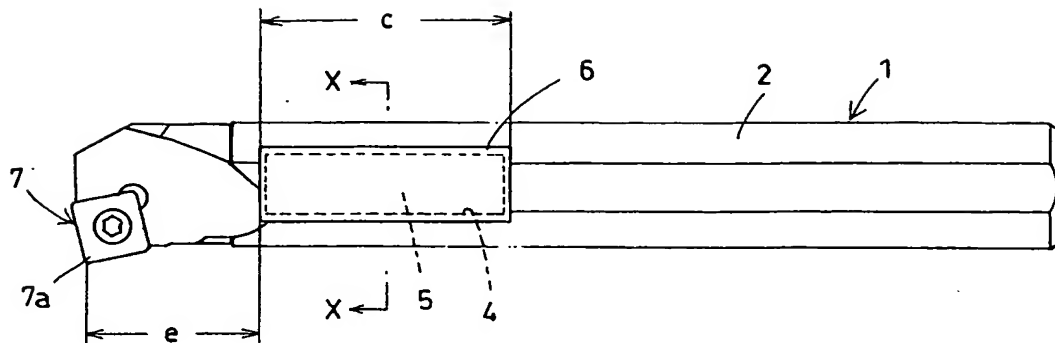


Fig.18(b)

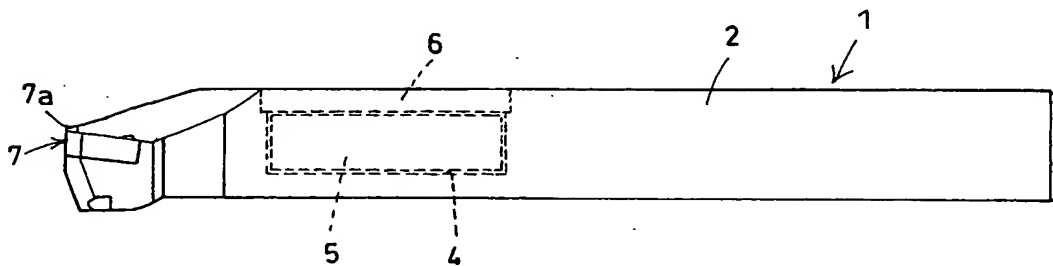


Fig.18(c)

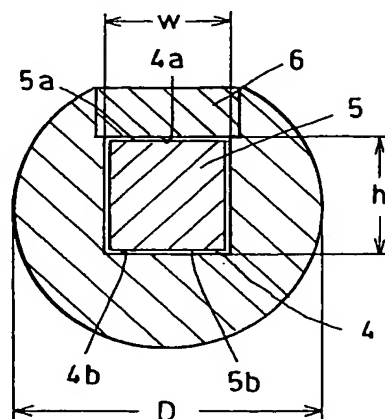


Fig. 19(a)

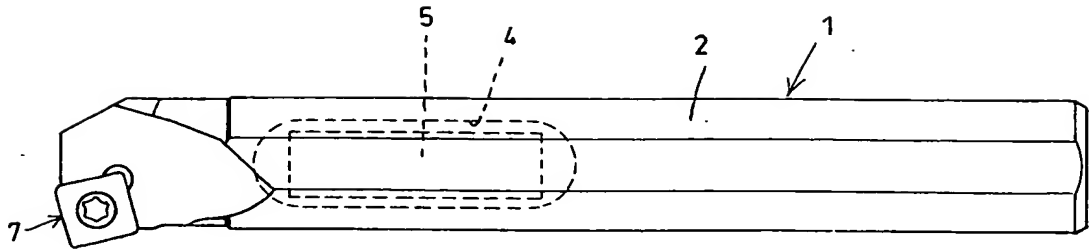


Fig. 19(b)

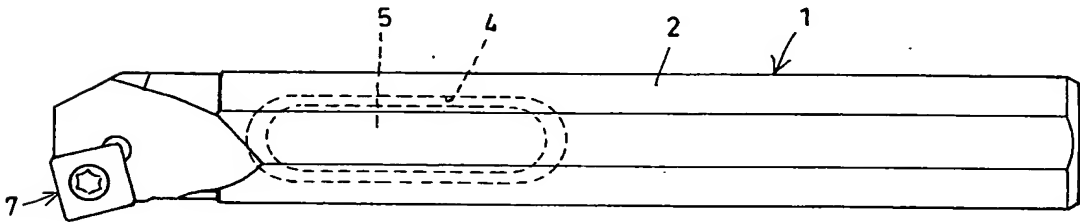


Fig. 19(c)

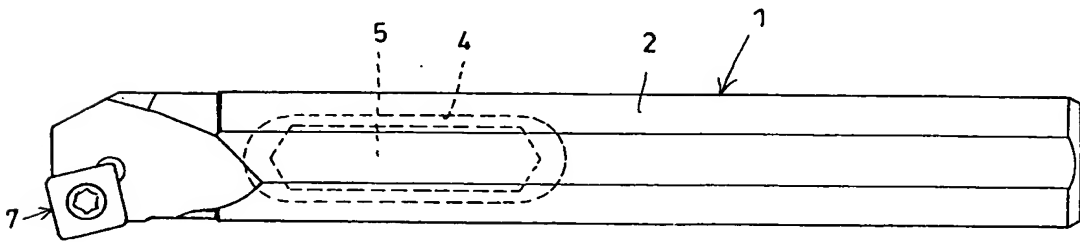


Fig.20(a)

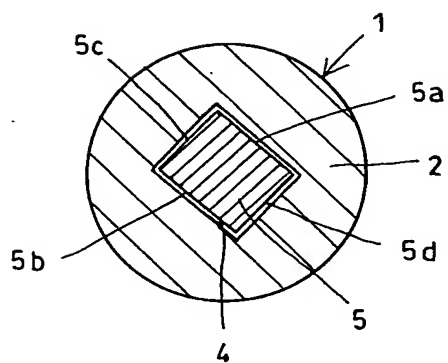


Fig.20(b)

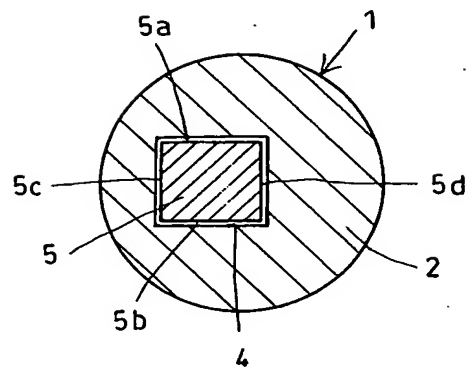


Fig.21

	Size of pocket		Result of cutting	
	Width (mm)	Height (mm)	Cutting conditions 1	Cutting conditions 2
Example 1 of the invention	5	5	○	○
Example 2 of the invention	8	7	○	○
Comparative Example 1	3	3	×	×
Comparative Example 2	12	4	○	×
Comparative Example 3	Steel shank		×	×

Fig.22(a)

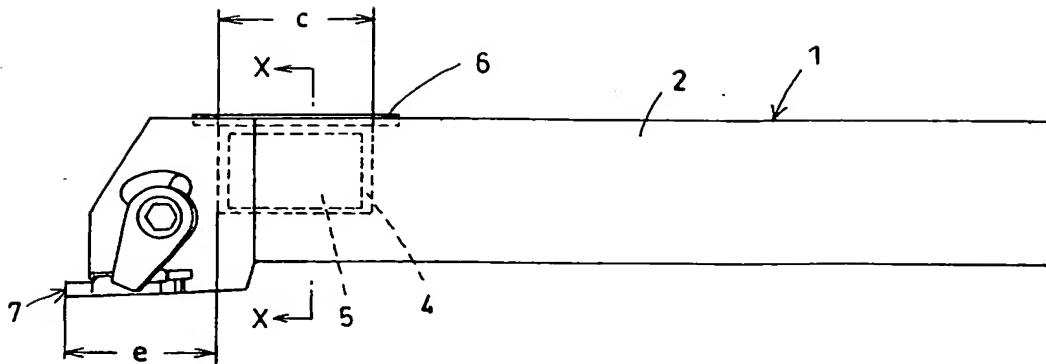


Fig.22(b)

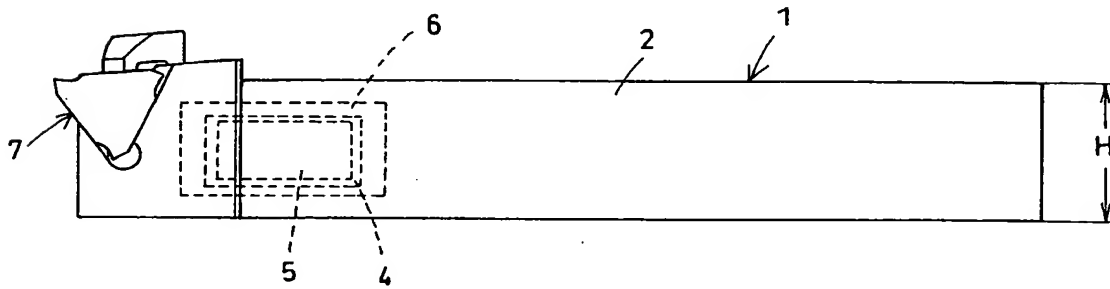


Fig.22(c)

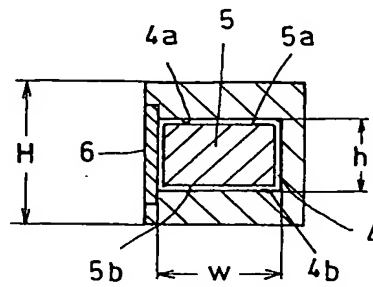


Fig.23(a)

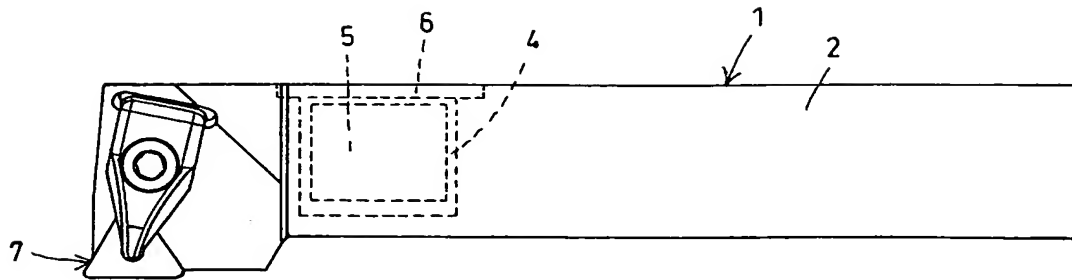


Fig.23(b)

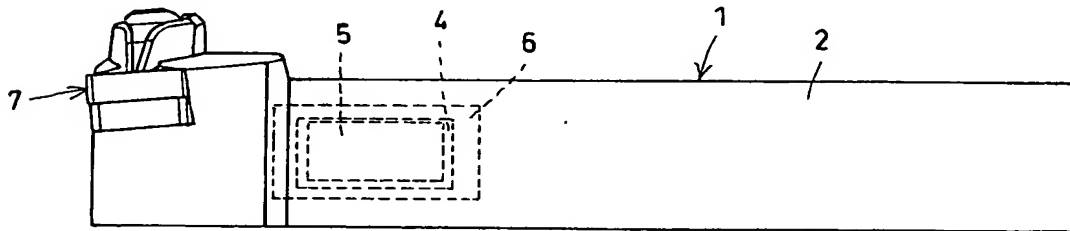


Fig.24(a)

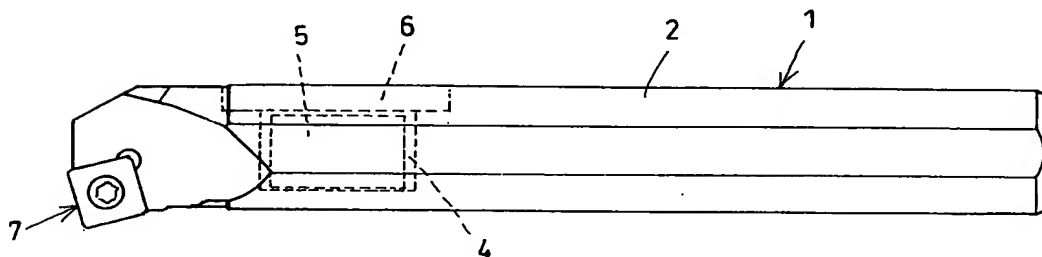


Fig.24(b)

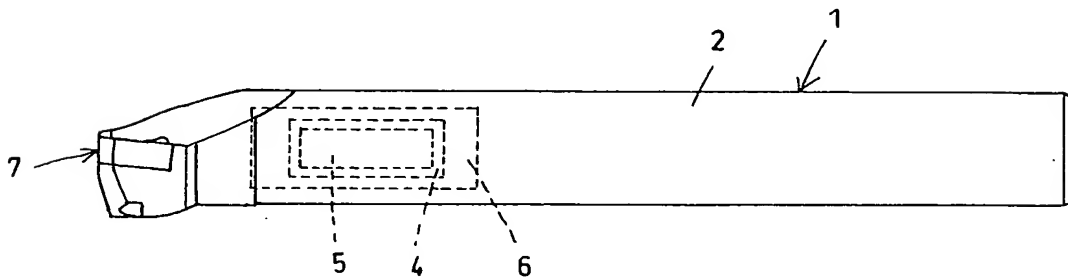


Fig.25

	Size of pocket		Result of cutting	
	Width (mm)	Height (mm)	Cutting conditions 1	Cutting conditions 2
Example 1 of the invention	20	13	○	○
Example 2 of the invention	15	10	○	○
Comparative Example 1	20	20	×	×
Comparative Example 2	20	8	○	×
Comparative Example 3	10	10	○	×
Comparative Example 4	Steel shank		×	×

Fig.26(a)

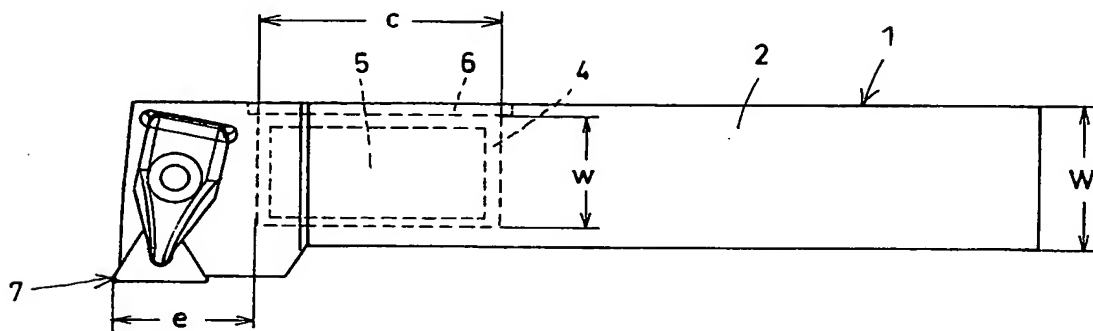


Fig.26(b)

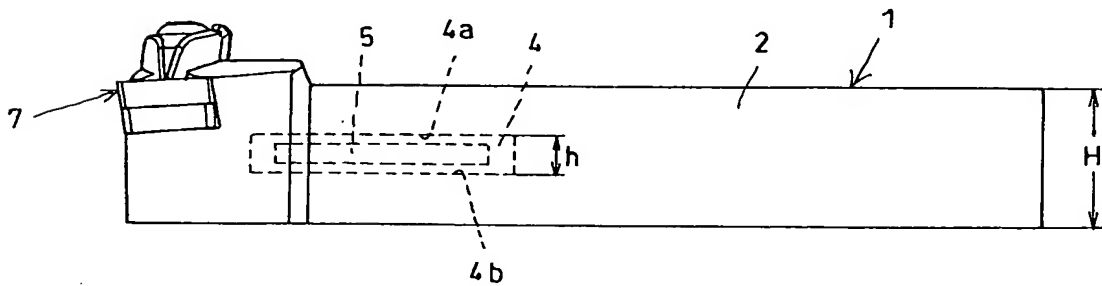


Fig.27(a)

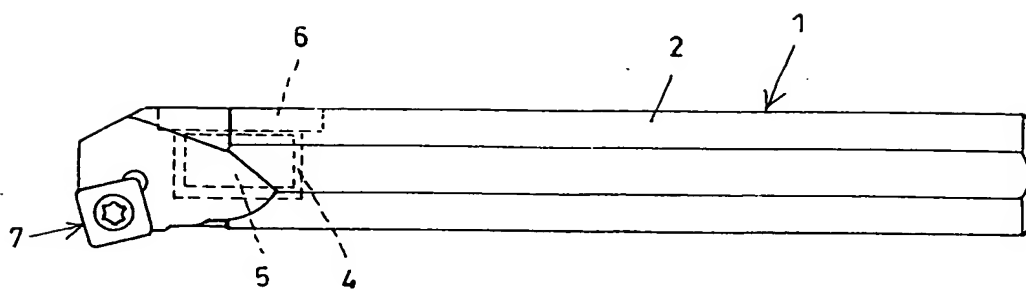


Fig.27(b)

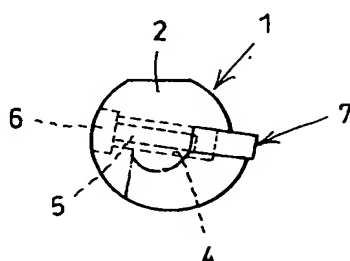


Fig.28

	Size of pocket		Number of impacts until breakage
	Width (mm)	Height (mm)	
Example 1 of the invention	22	3	1950
Example 2 of the invention	14	5	1800
Comparative Example 1	22	1.2	550
Comparative Example 2	22	10	640
Comparative Example 3	Steel shank		600

Fig.29

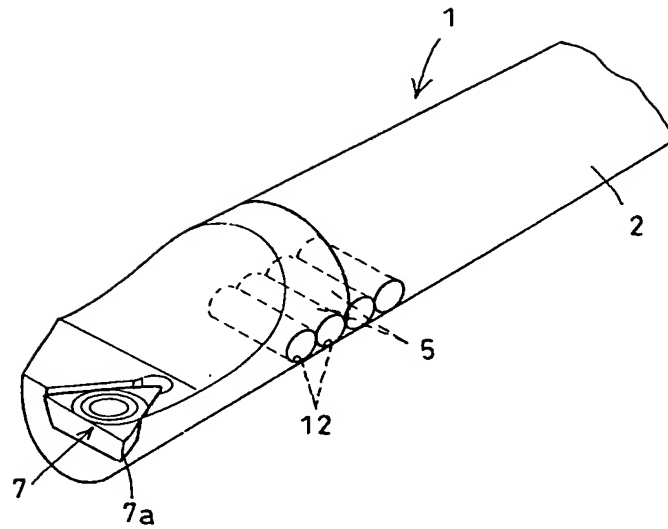


Fig.30(a)

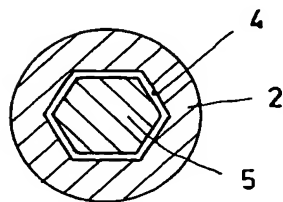


Fig.30(b)

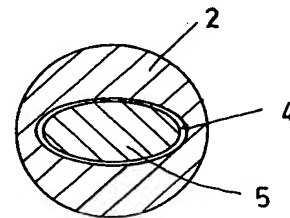


Fig.30(c)

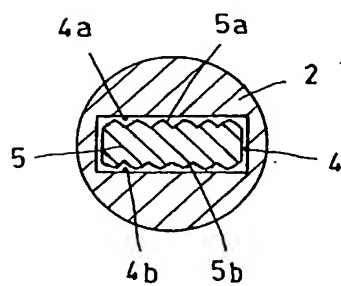


Fig.30(d)

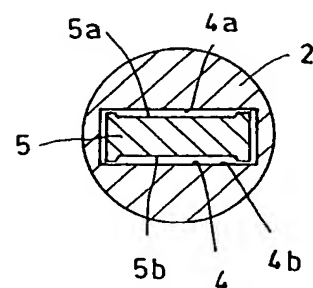




Fig.31

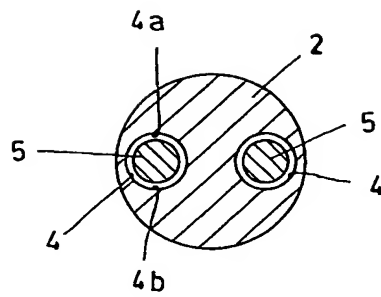


Fig.32(a)

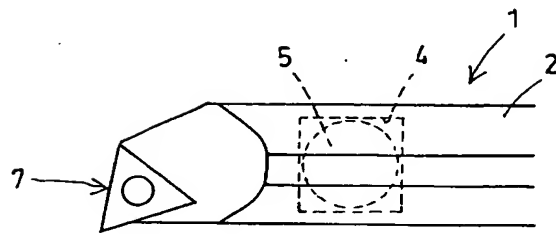


Fig.32(b)

